BINARY SEARCH.JAVA

```
package Basics;

import java.util.Scanner;
public class BinarySearch{
	public static void main(String[] args) {

		int low ,mid = 0 ,high,n,k,i;
		int a[]=new int[20];
		Scanner s= new Scanner(System.in);
		System.out.println("ENTER THE SIZE OF THE ARRAY");
		n=s.nextInt();
		System.out.println("ENTER THE ELEMENTS INTO THE ARRAY");
		for(i=0;i<n;i++) {
			a[i]=s.nextInt();
		}
		System.out.println("ENTER THE ELEMENT TO BE SEARCH");
		k=s.nextInt();
		low=0;
		high=n-1;
		while(low<=high) {
			mid=(low+high)/2;

			if(a[mid]<k) {
				low=mid+1;
			}
			else  if(a[mid]>k) {
				high=mid-1;
		}
			else
				break;

			}

		if(a[mid]==k) {
			System.out.println( mid+1  +"  is the location of the search
element");
		}
		else {
			System.out.println("Element Not Found--Error Occured");
		}
}
}
```

ADD MATRIX.JAVA

```
package Basics;

import java.util.Scanner;
public class AddMatrix{
	public static void main(String[] args) {
		//ADDITION OF THE MATRIX
	int m,n,p,q,i,j;
		Scanner s = new Scanner(System.in);
		System.out.println("ENTER THE NO OF ROWS OF THE MATRIX:A ");
```

```
		m=s.nextInt();
		System.out.println("ENTER THE NO OF COLUMNS OF THE MATRIX:A");
		n=s.nextInt();
		System.out.println("ENTER THE NO OF ROWS OF THE MATRIX:B");
		p=s.nextInt();
		System.out.println("ENTER THE NO OF COLUMNS OF THE MATRIX:B");
		q=s.nextInt();
		int a[][]=new int[m][n];
		int b[][]=new int[p][q];
		int sum[][]=new int[m][n];

		if(m==p&&n==q) {
	System.out.println("ENTER THE ELEMENTS OF MATRIX :A");
	for(i=0;i<m;i++) {
		for(j=0;j<n;j++) {
			a[i][j]=s.nextInt();
		}
	}

	System.out.println("ENTER THE ELEMENTS OF MATRIX :B");
	for(i=0;i<p;i++) {
		for(j=0;j<q;j++) {
			b[i][j]=s.nextInt();
		}
	}

	//--
	System.out.println("MATRIX :A");
	for(i=0;i<m;i++) {
		for(j=0;j<n;j++) {
			System.out.print(a[i][j]+" ");
		}
		System.out.println("");
	}

	System.out.println("MATRIX :B");
	for(i=0;i<p;i++) {
		for(j=0;j<q;j++) {
			System.out.print(b[i][j]+" ");
		}
		System.out.println("");
	}

	System.out.println(" RESULTANT MATRIX");
	for(i=0;i<p;i++) {
		for(j=0;j<q;j++) {

		sum[i][j]=a[i][j]+b[i][j];

			System.out.print(sum[i][j]+" ");
		}
		System.out.println("");
	}

	}
		else {
			System.out.println("MATRIX ORDER ERROR");
		}
}
}
```

AVERAGE MARKS OF STUDENTS.JAVA

```java
package Basics;
import java.util.Scanner;

public class AverageMarksOfStudent{
	public static void main(String[] args) {
		int m1,m2,m3,average;
		String name;

		Scanner s =new Scanner(System.in);
		// letter can be also taken as char name=s.next().charAt(0);
		name=s.next();
		char c =name.charAt(0);
		m1=s.nextInt();
		m2=s.nextInt();
		m3=s.nextInt();

		average=(m1+m2+m3)/3;

		System.out.println(c);
		System.out.println(average);




	}
}
```

BASICS.JAVA

```java
package Basics;
import java.util.Scanner;

public class basics {
		public static void main(String[] args) {

//		--------------------------------------------------------------------------------
------------------------------
//			System.out.println("Addition of two numbers");
//			int a=10,b=20,c;
//			c=a+b;
//			System.out.println(c);
//			--------------------------------------------------------------------
----------------------------------------
//			ADDITION OF TWO NUMBERS WITH SCANNER AS TAKING INPUT
//			WHAT TO REMEMBER IN THIS INPUT TAKING METHOD IS
//			SCANNER IS LIKE INT,CAR---type
//			s ----VARIABLE
//			new ---KEYWORD
//			SCANNER(System.in)---taking or scanning the input
//			s.nextInt();-----means take next integer value
//			s.nextDouble---for double data type
//			s.nextLong or Short or Float ---for diff datatypes
```

```
//                  ----ONE COMPLETE WORD---LIKE arshad in arshad ahmed shareef
//                  String or character as an input
//                   String---Data Type
//                   variable---name
//                   =next();
//                  Look some thing like this String str =next();

//                  ---------------------------------------

//                  ------ONE COMPLETE SENTENCE-------
//                  s.nextLine();
//                  ---------------------------------


//                  int b;
//                  float a,c;
//                  Scanner s = new Scanner(System.in);
//                  a=s.nextFloat();
//                  b=s.nextInt();
//
//                  c=a+b;
//                  System.out.println(c);

                    int a;
                    float b,sum;
                    System.out.println("Enter the number a=");
                    Scanner s=new Scanner(System.in);
                    a=s.nextInt();
                    System.out.println("Enter the number b=");
                    b=s.nextInt();
                    System.out.println("Result number =");
                    sum=a+b;
                    System.out.println(sum);

//                  ------------------------------------------------------------------------
----------------------------
//


                    }
}
```

EVEN OR ODD NUMBER.JAVA

```
 package Basics;

 import java.util.Scanner;
 public class EvenOrOddNumber{
        public static void main(String[] args) {
               int n;
               Scanner s =new Scanner(System.in);
               n=s.nextInt();
               if(n%2==0) {
                      System.out.println("Even Number");
               }
               else {
                      System.out.println("Odd Number");
               }
```

```
        }
 }
```

FIBONNAICESERIES.JAVA

```
package Basics;
import java.util.Scanner;
public class FibonnaicSeries{
	public static void main(String[] args) {
		int f1=0,f2=1,f3,i=0,n;
		 System.out.println("Enter The Limit Number ");
		 Scanner s = new Scanner(System.in);
		 n=s.nextInt();
		 System.out.print(f1+ " " +f2);
		 while(i<=n) {
			f3=f1+f2;
			System.out.print(" "+f3);
			i++;
			f1=f2;
			f2=f3;
		 }
	}
}
```

MULMATRIX.JAVA

```
package Basics;

import java.util.Scanner;
public class MulMatrix{
	public static void main(String[] args) {
		//Multiplication OF THE MATRIX
	int m,n,p,q,i,j;
		Scanner s = new Scanner(System.in);
		System.out.println("ENTER THE NO OF ROWS OF THE MATRIX:A ");
		m=s.nextInt();
		System.out.println("ENTER THE NO OF COLUMNS OF THE MATRIX:A");
		n=s.nextInt();
		System.out.println("ENTER THE NO OF ROWS OF THE MATRIX:B");
		p=s.nextInt();
		System.out.println("ENTER THE NO OF COLUMNS OF THE MATRIX:B");
		q=s.nextInt();
		int a[][]=new int[m][n];
		int b[][]=new int[p][q];
		int sum[][]=new int[m][n];

		if(m==q) {
	System.out.println("ENTER THE ELEMENTS OF MATRIX :A");
	for(i=0;i<m;i++) {
		for(j=0;j<n;j++) {
			a[i][j]=s.nextInt();
		}
	}

	System.out.println("ENTER THE ELEMENTS OF MATRIX :B");
	for(i=0;i<p;i++) {
		for(j=0;j<q;j++) {
```

```
                        b[i][j]=s.nextInt();
                }
        }

        //--
        System.out.println("MATRIX :A");
        for(i=0;i<m;i++) {
                for(j=0;j<n;j++) {
                        System.out.print(a[i][j]+" ");
                }
                System.out.println("");
        }

        System.out.println("MATRIX :B");
        for(i=0;i<p;i++) {
                for(j=0;j<q;j++) {
                        System.out.print(b[i][j]+" ");
                }
                System.out.println("");
        }

        System.out.println(" RESULTANT MATRIX");
        for(i=0;i<p;i++) {
                for(j=0;j<q;j++) {

                sum[i][j]=a[i][j]*b[i][j];

                        System.out.print(sum[i][j]+" ");
                }
                System.out.println("");
        }

        }
                else {
                        System.out.println("MATRIX ORDER ERROR");
                }
}
}
```

PRIME.JAVA

```
package Basics;

import java.util.Scanner;
public class Prime{
        public static void main(String[] args) {
                int n,i=2;
                System.out.println("Enter the number");
                Scanner s= new Scanner(System.in);
                n=s.nextInt();

//              Main thing --
                while(i<=n) {
                        if(i==2) {
                                System.out.print(" "+i);
                        }
                else if(i%2==1) {

                                System.out.print(" "+i);
                        }
```

```
                i++;
            }

            //----------------------------FOR CHECKING PRIME NUMBERS ONLY----------
//          if(n%i==1) {
//                System.out.println("Give number is prime");
//                }
//          else{
//                System.out.println("Not Prime");
//          }
      }
}
```

UPPERCASELOWERCASE.JAVA

```
package Basics;

import java.util.Scanner;
public class UpperCaseLowerCase{
      public static void main(String[] args) {
            System.out.println("Enter To Check");
            Scanner s=  new Scanner(System.in);
            String str=s.next();
            char c=str.charAt(0);

            if(c>='A'&& c<='Z') {
                  System.out.println("CAPITAL LETTER");
                  System.out.println(1);
            }
            else if(c>='a'&& c<='z') {
                  System.out.println("Small letter");
                  System.out.println(0);
            }else {
                  System.out.println("Invalid letter");
                  System.out.println(-1);
            }
      }
}
```

-----END------